

2590
01/6

#8

ENTERED

See page 6



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/050,902

DATE: 01/23/2003

TIME: 12:20:04

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

```

5 <110> APPLICANT: Renner, Wolfgang A.
6     Bachmann, Martin
7     Tissot, Alain
8     Maurer, Patrick
9     Lechner, Franziska
10    Sebbel, Peter
11    Piossek, Christine
13 <120> TITLE OF INVENTION: Molecular Antigen Array
15 <130> FILE REFERENCE: 1700.0190004
17 <140> CURRENT APPLICATION NUMBER: 10/050,902
18 <141> CURRENT FILING DATE: 2002-01-18
20 <150> PRIOR APPLICATION NUMBER: US 60/262,379
21 <151> PRIOR FILING DATE: 2001-01-19
23 <150> PRIOR APPLICATION NUMBER: US 60/288,549
24 <151> PRIOR FILING DATE: 2001-05-04
26 <150> PRIOR APPLICATION NUMBER: US 60/326,998
27 <151> PRIOR FILING DATE: 2001-10-05
29 <150> PRIOR APPLICATION NUMBER: US 60/331,045
30 <151> PRIOR FILING DATE: 2001-11-07
32 <160> NUMBER OF SEQ ID NOS: 350
34 <170> SOFTWARE: PatentIn Ver. 2.1
36 <210> SEQ ID NO: 1
37 <211> LENGTH: 41
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: Primer
44 <400> SEQUENCE: 1
45 ggggacgcgt gcagcaggta accaccgtta aagaaggcac c 41
48 <210> SEQ ID NO: 2
49 <211> LENGTH: 44
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Primer
56 <400> SEQUENCE: 2
57 cggtggttac ctgctgcacg cggttgcttaa gcgacatgta gcgg 44
60 <210> SEQ ID NO: 3
61 <211> LENGTH: 20
62 <212> TYPE: DNA
63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Primer

```

RAW SEQUENCE LISTING

DATE: 01/23/2003

PATENT APPLICATION: US/10/050,902

TIME: 12:20:04

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

```

68 <400> SEQUENCE: 3
69 ccatgaggcc tacgataccc 20
72 <210> SEQ ID NO: 4
73 <211> LENGTH: 25
74 <212> TYPE: DNA
75 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: Primer
80 <400> SEQUENCE: 4
81 ggcaactcacg gcgcgcttta caggc 25
84 <210> SEQ ID NO: 5
85 <211> LENGTH: 47
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Primer
92 <400> SEQUENCE: 5
93 ccttctttaa cgggtgttac ctgctggcaa ccaacgtggt tcatgac 47
96 <210> SEQ ID NO: 6
97 <211> LENGTH: 40
98 <212> TYPE: DNA
99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Primer
104 <400> SEQUENCE: 6
105 aagcatgctg cacgcgtgtg cgggtgtcgg atcgcccggc 40
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 90
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Primer
116 <400> SEQUENCE: 7
117 gggctctagat tccaaccat tcccttatcc aggccttttg acaacgctat gctccgcgcc 60
118 catcgtctgc accagctggc ctttgacacc 90
121 <210> SEQ ID NO: 8
122 <211> LENGTH: 108
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Primer
129 <400> SEQUENCE: 8
130 gggctctagaa ggaggtaaaa aacgatgaaa aagacagcta tcgcgattgc agtggcactg 60
131 gctggtttcg ctaccgtagc gcaggccttc ccaaccattc ctttatcc 108
134 <210> SEQ ID NO: 9
135 <211> LENGTH: 31
136 <212> TYPE: DNA
137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/050,902

DATE: 01/23/2003

TIME: 12:20:04

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

```

140 <223> OTHER INFORMATION: Primer
142 <400> SEQUENCE: 9
143 cccgaattcc tagaagccac agctgccctc c 31
146 <210> SEQ ID NO: 10
147 <211> LENGTH: 24
148 <212> TYPE: DNA
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Primer
154 <400> SEQUENCE: 10
155 cctgcggtgg tctgaccgac accc 24
158 <210> SEQ ID NO: 11
159 <211> LENGTH: 41
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Primer
166 <400> SEQUENCE: 11
167 ccgcggaaga gccaccgcaa ccaccgtgtg ccgccaggat g 41
170 <210> SEQ ID NO: 12
171 <211> LENGTH: 33
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Primer
178 <400> SEQUENCE: 12
179 ctatcatcta gaatgaatag aggattcttt aac 33
182 <210> SEQ ID NO: 13
183 <211> LENGTH: 15
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Modified ribosome binding site
190 <400> SEQUENCE: 13
191 aggaggtaaa aaacg 15
194 <210> SEQ ID NO: 14
195 <211> LENGTH: 21
196 <212> TYPE: PRT
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: signal peptide
202 <400> SEQUENCE: 14
203 Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
204 1 5 10 15
206 Thr Val Ala Gln Ala
207 20
210 <210> SEQ ID NO: 15
211 <211> LENGTH: 46
212 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/050,902

DATE: 01/23/2003

TIME: 12:20:04

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

```

213 <213> ORGANISM: Artificial Sequence
215 <220> FEATURE:
216 <223> OTHER INFORMATION: modified Fos construct
218 <400> SEQUENCE: 15
219 Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu
220   1           5           10           15
222 Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu
223           20           25           30
225 Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala His Gly Gly Cys
226           35           40           45
229 <210> SEQ ID NO: 16
230 <211> LENGTH: 6
231 <212> TYPE: PRT
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: peptide linker
237 <400> SEQUENCE: 16
238 Ala Ala Ala Ser Gly Gly
239   1           5
242 <210> SEQ ID NO: 17
243 <211> LENGTH: 6
244 <212> TYPE: PRT
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: peptide linker
250 <400> SEQUENCE: 17
251 Gly Gly Ser Ala Ala Ala
252   1           5
255 <210> SEQ ID NO: 18
256 <211> LENGTH: 256
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Fos fusion construct
263 <400> SEQUENCE: 18
264 gaattcagga ggtaaaaaac gatgaaaaag acagctatcg cgattgcagt ggcaactggct 60
265 ggttttcgcta ccgtagcgca ggcctgggtg gggcgccg cttctggtgg ttgcggtgg 120
266 ctgaccgaca cctgcaggc ggaaccgac caggtggaag acgaaaaatc cgcgctgcaa 180
267 accgaaatcg cgaacctgct gaaagaaaaa gaaaagctgg agttcatcct ggcggcacac 240
268 ggtggttgct aagctt           256
271 <210> SEQ ID NO: 19
272 <211> LENGTH: 52
273 <212> TYPE: PRT
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: Fos fusion construct
279 <400> SEQUENCE: 19
280 Ala Ala Ala Ser Gly Gly Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala
281           5           10           15

```

RAW SEQUENCE LISTING

DATE: 01/23/2003

PATENT APPLICATION: US/10/050,902

TIME: 12:20:04

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

```

283 Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile
284           20           25           30
286 Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala
287           35           40           45
289 His Gly Gly Cys
290           50
294 <210> SEQ ID NO: 20
295 <211> LENGTH: 261
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Fos fusion construct
303 <220> FEATURE:
304 <221> NAME/KEY: CDS
305 <222> LOCATION: (22)..(240)
307 <400> SEQUENCE: 20
308 gaattcagga ggtaaaaaaac g atg aaa aag aca gct atc gcg att gca gtg 51
309                               Met Lys Lys Thr Ala Ile Ala Ile Ala Val
310                               1           5           10
312 gca ctg gct ggt ttc gct acc gta gcg cag gcc tgc ggt ggt ctg acc 99
313 Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Cys Gly Gly Leu Thr
314           15           20           25
316 gac acc ctg cag gcg gaa acc gac cag gtg gaa gac gaa aaa tcc gcg 147
317 Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala
318           30           35           40
320 ctg caa acc gaa atc gcg aac ctg ctg aaa gaa aaa gaa aag ctg gag 195
321 Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu
322           45           50           55
324 ttc atc ctg gcg gca cac ggt ggt tgc ggt ggt tct gcg gcc gct 240
325 Phe Ile Leu Ala Ala His Gly Gly Cys Gly Gly Ser Ala Ala Ala
326           60           65           70
328 ggggtgtggggg atatcaagct t 261
331 <210> SEQ ID NO: 21
332 <211> LENGTH: 73
333 <212> TYPE: PRT
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: Fos fusion construct
339 <400> SEQUENCE: 21
340 Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
341 1           5           10           15
343 Thr Val Ala Gln Ala Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala Glu
344           20           25           30
346 Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala
347           35           40           45
349 Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala His
350           50           55           60
352 Gly Gly Cys Gly Gly Ser Ala Ala Ala
353 65           70

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/050,902

DATE: 01/23/2003
TIME: 12:20:05

Input Set : A:\1700.0190004seqlist.txt
Output Set: N:\CRF4\01232003\J050902.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:111; Xaa Pos. 28
Seq#:283; N Pos. 9872

VERIFICATION SUMMARY

DATE: 01/23/2003

PATENT APPLICATION: US/10/050,902

TIME: 12:20:05

Input Set : A:\1700.0190004seqlist.txt

Output Set: N:\CRF4\01232003\J050902.raw

L:2382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:16
L:5203 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (177) SEQUENCE:
L:9586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:283 after pos.:9840